

JPRS-ESA-86-001

5 FEBRUARY 1986

East Europe Report

SCIENCE AND TECHNOLOGY

TABLES OF CONTENTS

JPRS-ESA-85-001, 2 JANUARY 1985-

JPRS-ESA-85-039, 29 DECEMBER 1985

DISTRIBUTION STATEMENT A

Approved for public release,
Distribution Unlimited

DTIC QUALITY INSPECTED 2

19980218 105

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

2 January 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

BULGARIA

Use of Computers in Banking Operations (Todor Nikolov; RABOTNICHESKO DELO, 10 Nov 84).....	1
Failure To Apply Achievements of Microbiology Criticized (Krum Rizvanov; RABOTNICHESKO DELO, 10 Nov 84).....	3

CZECHOSLOVAKIA

Selections on Organizational and Computer Technology (VYBER INFORMACI Z ORGANIZACNI A VYPOCENTNI TECHNIKY, No 2, 1984).....	6
Logistics-Oriented Software, by Alois Petr Technical-Economic Planning Subsystem, by Miroslav Ptacek USSR Information Service Automation Automated Footwear Distribution in USSR Data Base Control Systems, by Jaroslav Trnecek SMEP Communication Modules, by Oldrich Dulik, et al. New Soviet Microcomputer Corrections to VYBER Article New JSEP Systems New JSEP Computer, by Josef Cmiral Introduction to Computers, by Eduard Drobny, Peter Drobny Video Literature USSR Open Computer Networks Multicomputer Systems, by Jaroslav Jandos Soviet Dialogue, Dispatching System Bulgarian Magnetic Tape Units Robotron Software Seminar New Bulgarian Zvezda Software New Soviet Operating System Soviet Real Time Operating Systems Coordination of Software in USSR CEMA Office Systems Exposition, by Josip Rajman	
Slow Progress in Application of Science (Ludovit Kuniak; PRAVDA, 6 Nov 84).....	63

Scientific Film Festival in CSSR
(Milan Damits Interview; RUDE PRAVO, 26 Oct 84)..... 66

Briefs

Heart Transplants in CSSR 68

GERMAN DEMOCRATIC REPUBLIC

Research on Trends in Machine Tool Automation
(Detlef Kochan Interview; SAECHSISCHE ZEITUNG, 14 Sep 84).... 69

HUNGARY

Study Stresses Need for Development of Submicron Technology
(MUSZAKI ELET, No 21, 11 Oct 84)..... 74

ROMANIA

Achievements of Units of National Center for Physics Hailed
(STIINTA SI TEHNICA, No 10, Oct 84)..... 85

National Center for Physics, by Ioan Brandus
Nuclear Physics, by G. Semenescu
Nucleonics Development, by D. Dorcioman, G. Peteu
Radioactive Products, by E. Gard
Ionic Nitriding, by P. Croitoru
Installations, Technologies Under Vacuum, by T. Pacurar
Plasma Physics, by C. Popovici, G. Musa
Laser Applications, by V. Dragănescu, V. Vasiliu
Materials With Special Properties, by P. Nicolau, A. Aldea

16 January 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

INTERNATIONAL AFFAIRS

CEMA Development, Production of Industrial Robots (ZYCIE WARSZAWY, 11 Oct 84; TRYBUNA LUDU, 28 Nov 84)	1
Ambitious Development Plans Robotization Regarded as Priority, by Tomasz Miecik	
CEMA Joint Robotics Technology Development, Production Discussed (Michail Mulkonyan; FREIHEIT, 2 Nov 84)	6
GDR-Hungary Develop Electromagnetic Metalworking Equipment (J. Erdoesi; FERTIGUNGSTECHNIK UND BETRIEB, No 10, 1984) .	8

GERMAN DEMOCRATIC REPUBLIC

Industrial Automation Equipment for Export Described (DDR EXPORT: ELEKTROTECHNIK, 1984)	12
New Statute of Academy of Sciences Urges Closer Non-Bloc Ties (Various sources, various dates)	15
Statute Summarized Western Commentary Official Text	
ESER Status Report Alludes to Ryad III Development (Hang-Georg Jungnickel; RECHENTECHNIK-DATENVERARBEITUNG, No 10, Oct 84)	38
Researcher on Ion-Beam Lithography in IC Manufacture (Frieder Bigl Interview; LEIPZIGER VOLKSZEITUNG, 27-28 Oct 84)	49

HUNGARY

Measuring Instruments Enterprise Adopts Electronics, Microprocessors (Katalin Bossanyi; NEPSZABADSAG, 7 Nov 84)	51
--	----

Electronics Industry Beset by Problems
(MAGYAR HIRLAP, 28 Nov 84) 55

POLAND

Computer, Microprocessor Developments Described
(PRZEGLAD TECHNICZNY, 7 Oct 84; WIADOMOSCI
TELEKOMUNIKACYJNE, No 5-6, May-Jun 84) 57

Computer Inventory, Investments, Centers
Spectrum Minicomputer Imports
MIKROSYSTEM IK-80 Microprocessor System,
by Witold Zatorski, Wladzimierz Gornisiewicz

23 January 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

BULGARIA

New Developments in Robotics, Computer Technology Described (RABOTNICHESKO DELO, 9 Nov 84)	1
New Personal Robot, by Milena Dimitrova	
British Interest in Bulgarian Robotics	
New Microcomputer Produced, by Aleksandur Yavrichev	
New Laser Developed (SPISANIE NA BULGARSKATA AKADEMIYA NA NAUKITE, No 4, 1984)	6
Bulgarian Academy Achievements, Problems, Future Tasks (Blagovest Sendov; SPISANIE NA BULGARSKATA AKADEMIYA NA NAUKITE, No 4, 1984)	8
State of Arable Land, Erosion, Soil Quality Assessed (Ivan Gurbuchev, Mikho Yolevski; SPISANIE NA BULGARSKATA AKADEMIYA NA NAUKITE, No 4, 1984)	33

GERMAN DEMOCRATIC REPUBLIC

Ultrasonic Vibration Welding Equipment Developed (Reinhard Fiedler; BERLINER ZEITUNG, 3-4 Nov 84)	47
--	----

HUNGARY

Developments in Prostaglandin Production Noted (Istvan Palugyai; MAGYAR HIREK, No 22, 27 Oct 84)	50
---	----

POLAND

Problems, Difficulties in Robotization Program Described (Andrzej Dubina Interview; PRZEGLAD TECHNICZNY, No 37, 9 Sep 84)	52
---	----

24 January 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

INTERNATIONAL AFFAIRS

Polish-Soviet Technological Cooperation Outlined (Various sources, various dates).....	1
---	---

Soviet Technical Centers in Poland Coordination of Technological Processes Coordination of Plans, by Jadwiga Korzeniowska	
---	--

CZECHOSLOVAKIA

Selections on CSSR Computer Technology (VYBER INFORMACI Z ORGANIZACNI A VYPOCETNI TECHNIKY, No 3, 1984).....	10
--	----

CSSR IGS Systems, Jaroslav Toifl New SMEP Computers, Ivan Sevcik, Vaclav Vojtech ADT 4700 Minicomputer, Pavel Kudrnovsky Budgeting of Computer Systems Soviet Display Subsystem, by Pavel Kratochvil CSSR Robots, Manipulators Leipzig Exhibit, by Josip Rajman Institute of Technological Cybernetics	
---	--

GERMAN DEMOCRATIC REPUBLIC

Microelectronics Production Industry, Integration Discussed (Karl-Heinz Arnold; BERLINER ZEITUNG, 21 Nov 84).....	50
--	----

Production Increased 30 Percent Integration Efforts Termed Inadequate	
--	--

POLAND

R-34 Computer Hardware, Software Described (Waclaw Piwonski; WIDADOMOSCI TELEKOMUNIKACYJNE, No 7, Jul 84).....	56
--	----

4 February 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

INTERNATIONAL AFFAIRS

Semiconductors at Leipzig Spring Fair (A. Blodszun, W.E. Schlegel; RADIO FERNSEHEN ELEKTRONIK, Vol 33, No 6, Jun 84).....	1
Data Acquisition, Measurement Devices at 1984 Leipzig Spring Fair (K. Eckert, et. al.; RADIO FERNSEHEN ELEKTRONIK, Vol 33, No 6, Jun 84).....	14
Computer Equipment at 1984 Leipzig Spring Fair (V. Loeschner, B. Kasper; RADIO FERNSEHEN ELEKTRONIK, Vol 33, No 7, Jul 84).....	32

CZECHOSLOVAKIA

Briefs	
CSSR Manufactures First Magnetrons	40
New Lung Examination Method	40

GERMAN DEMOCRATIC REPUBLIC

New Optoelectronic Components for Machine Control Developed (Rainer Schmid; BERLINER ZEITUNG, 24-25 Nov 84).....	42
Briefs	
New Power Metallurgy Facility	45
Center Produces Machine Controllers	45
Lab for Welding Automation	46

HUNGARY

Software Firm Thrives in Paris (Katalin Gorgei; OTLET, 25 Oct 84).....	47
---	----

New Regulations for Technical Development Financing Explained (Edit Javorka Interview; HETIVILAGGAZDASAG, 17 Nov 84)....	50
Council of Ministers Affirms Priority of Computers, Microelectronics (Kristof G. Kocsis; MAGYAR HIRLAP, 23 Nov 84).....	55
Problems of Computer, Electronics Industry Noted (NEPSZABADSAG, 24 Nov 84).....	57

JPRS-ESA-85-006

7 February 1985

East Europe Report

SCIENCE AND TECHNOLOGY

TABLE OF CONTENTS

JPRS-ESA-84-001, 3 January 1984-

JPRS-ESA-84-047, 28 December 1984

FBIS

FOREIGN BROADCAST INFORMATION SERVICE

14 February 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

GERMAN DEMOCRATIC REPUBLIC

Operating System OC 7 EC for ESER 1, 2 Computers (EDV ASPEKTE, No 3, 1984).....	1
System Development, Applications Described, by Walter Muench	1
Development of OS/ES System, by Walter Muench	2
System of Virtual Machines, Version 3, by Klaus Heinecke, Achim Schroeder	9
BPS System for Batch Operation, by Bernd Wetzel	17
SVS 7.0 Operating System, by Karl-Heinz Maennel, Siegfried Schneider	20
Virtual Storage Access Method, by Joerg Neumann, et al.	42
Assembler 2 Program, by Rainer Kretzschmar	52
TSO Subscriber Support Operation, by Guenter Brusdeylins	56
TCAM/NF Extended Access Method, by Hans-Juergen Baumhaekel	66
POC Multiple-Computer Control System, by Wolfgang Hoesel	83
Program Development With PTS, by Bernd Lilpopp, Klaus Wagner	93
Common Technology Programming, by Claus-Detlef Menschel	102
Steps Toward Factory Automation in Workpiece Production (Heinz Singer; NEUES DEUTSCHLAND, 20 Nov 84).....	112
Briefs	
Miniaturization of Relays Improved	115
Laser Separation for IC Production	116
Annual Steel Production Figures	116
Machine Tool Modernization Plans	116
Combine Modernizing 1,500 Machine Tools	116
Industrial Facility Construction Combine	117

YUGOSLAVIA

Briefs	
Domestic Robot	118

15 February 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

HUNGARY

Productive Work at Academy Institute of Experimental Medicine (NEPSZABADSAG, 29 Nov 84)	1
Roundup of Developments in Biotechnology Published (Ferenc Marffy; MUSZAKI ELET, 22 Dec 84)	5

POLAND

Analysis of Baltic Coast Uranium-Bearing Minerals Summarized (Elzbieta Baraja; KWARTALNIK GEOLOGICZNY, No 2, 1984)	10
Technical Data on New Engineering Products (POLISH ENGINEERING, No 4, 1984)	11
National Machine Tools Conference Slated for 1985 (MECHANIK, No 6, 1984)	20
Conference Agenda, Papers, by L. T. Wrotny State-of-the-Art Machining Centers Paper, by Jan Gaciag	
Methodology for Stress Analysis of Heavy Metal Plate (Marian Kmiecik, Alfred Jazukiewicz; BUDOWNICTWO OKRETOWE, No 10, 1984)	40
Flame-Spread Properties of Domestic, Imported Marine Paints Compared (Tadeusz Kukula, Zygmunt Sychta; BUDOWNICTWO OKRETOWE, No 11, 1984)	47

26 February 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

BULGARIA

- | | |
|--|---|
| Robot Production Lines in Operation
(OTLET, 13 Dec 84)..... | 1 |
|--|---|

GERMAN DEMOCRATIC REPUBLIC

- | | |
|--|----|
| Institute Director Surveys Industrial Automation Drive
(Eberhard Vogt Interview; FERTIGUNGSTECHNIK UND BETRIEB, No 10, 1984)..... | 3 |
| Development of '7 Oktober' Machine Tool Combine Reviewed
(H. Naumann; FERTIGUNGSTECHNIK UND BETRIEB, No 10, 1984)..... | 9 |
| Developments in GDR Metal Forming Technology Assessed
(B. Sickel; FERTIGUNGSTECHNIK UND BETRIEB, No 10, 1984)..... | 12 |
| New PCB Production Center for Robotics Application
(Juergen W. Boehme; FREIHEIT, 9 Nov 84)..... | 16 |
| Increased Use of CNC in Machine Tool Construction
(R. Waetzig; FERTIGUNGSTECHNIK UND BETRIEB, No 11, 1984)..... | 18 |
| Reliability of DNC System Examined
(J. Schaller; FERTIGUNGSTECHNIK UND BETRIEB, No 11, 1984)..... | 23 |
| New CNC System Described
(W. Herbst, K. Schmiedgen; FERTIGUNGSTECHNIK UND BETRIEB, No 11, 1984)..... | 33 |

Briefs

Aluminum Foil Production Advances	39
Horizontal Boring, Milling Machine	39
New CNC Boring Mill	40
Robotics Application Statistics Cited	40

HUNGARY

Participation, Instrumentation of Soviet VEGA Project (Tamas Hetenyi; MAGYAR ELEKTRONIKA, No 1, 1984).....	41
Telemetry Systems of INTERKOSMOS Satellites (Tamas Hetenyi; MAGYAR ELEKTRONIKA, No 1, 1984).....	43
Marking Changes on Soviet IC's Explained (MAGYAR ELEKTRONIKA, No 1, 1984).....	45
ES 1056 System, Latest Version of Robotron 1055 (SZAMITASTECHNIKA, No 12, Dec 84).....	48

ROMANIA

Achievements, Future of Romanian Computer Industry (George Albut; SZAMITASTECHNIKA, No 12, Dec 84).....	49
--	----

11 March 1985

EAST EUROPE REPORT SCIENCE AND TECHNOLOGY

CONTENTS

BULGARIA

U.S. Plans for Antimissile Defense, Laser Weapons Outlined (BULGARSKI VOIN, No 12, 1984).....	1
Protective Measures Against Bacteriological Weapons (Todor Vachev; ARMEYSKI PREGLED, No 12, 1984).....	2
Use of High Technology for Military Purposes Discussed (NARODNA ARMIYA, 4 Jan 85; VOENNA TEKHNIKA, No 12, 1984)..	7
Lieutenant General Molkhov Interviewed Electronization Raises Combat Readiness, by Georgiev	
Soviet Scientist Dwells on Computer Development in USSR (Evgeniy Velikhov; RABOTNICHESKO DELO, 11 Jan 85).....	21
Lack of Foreign Language Knowledge Hinders Scientists (Aleko Novakov; RABOTNICHESKO DELO, 11 Jan 85).....	24
Cooperation With USSR in Developing Computers Outlined (Mara Georgieva; RABOTNICHESKO DELO, 14 Jan 85).....	26

CZECHOSLOVAKIA

CSSR Computer Technology Selections (VYBER INFORMACI Z ORGANIZACNI A VYPOCETNI TECHNIKY, No 4, 1984).....	28
CSSR , Foreign Microprocessors, by Vladimir Budar, Jiri Smutka	
RPR 16 S Computer, by M. Gavlik, et. al. Technology From Higher Schools	

M3T 320 Desktop Computer	
CSSR Computer Center Activities	
FRG Railways Information Service, by Jaromir Kloucek	
Data Transmission in Stribro	
JSEP 2, DOS-3 (DOS-4), by Jan Sokol	
SM 4-10 Computer Operation, by Zdenek Antos	
GDR Dialogue Communication System, by E. Rudolph	
British Information Science	
Sperry Rand MAPPER, by Ivan Malec, Miloslav Kuba	
Automation of Apparel Production	
 Acupuncture in CSSR	
(Dusan Kacani; SLOBODA, No 51-52, 1984).....	67
 Future of Genetic Engineering Reviewed	
(Stanislav Zadrazil Interview; TVORBA, 19 Dec 84).....	69
 Briefs	
New Pharmaceutical Institute Opened	75
 GERMAN DEMOCRATIC REPUBLIC	
Science Minister on 1985 Funding, Objectives	
(East Berlin Domestic Service, 18 Jan 85).....	76
Production Cells With IR 250 Robot Examined	
(FERTIGUNGSTECHNIK UND BETRIEB, Vol 34, No 9, Sep 84)....	79
Electrical Features of New DNC, CNC System Viewed	
(W. Fritzsch, et. al.; MESSEN STEUERN REGELN, Vol 27, No 10, Oct 84).....	86
Flexible Machining Systems Described	
(H.J. Butters; FERTIGUNGSTECHNIK UND BETRIEB, Vol 34, No 10, Oct 84).....	104
Operation of 'Prisma' Flexible Manufacturing System	
(W. Schroeder, et. al.; FERTIGUNGSTECHNIK UND BETRIEB, Vol 34, No 10, Oct 84).....	110
 HUNGARY	
Technical Intellectuals Still Short-Changed	
(MUSZAKI ELET, No 25, 6 Dec 84).....	119
 Briefs	
Videoton Computer Production	123

POLAND

- New Engineering Products Reviewed
(PRZEGLAD MECHANICZNY, various dates)..... 124
- Frequency Converter
Casting Plant Monitoring Devices
Heat Exchanger
Side-Boom Crane

ROMANIA

- Progress in Microelectronics Reviewed
(Ioan Batrana; REVISTA ECONOMICA, No 52, 28 Dec 84)..... 131

YUGOSLAVIA

- Briefs
Domestic Microcomputer 138

18 March 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

GERMAN DEMOCRATIC REPUBLIC

Briefs	
New Physics Institute Director	1
New Cybernetics, Automation Division	1
Glass Ceramic for Prostheses	1
Cutting Material Imports Increase	1
Eisenhuetten Steel Rolling Combine	2
Ball Bearing Production Improvements	2
Copper Content Measuring Device	3
Molecular-Beam Epitaxy Device	3

HUNGARY

Briefs	
Academy Computer, Data Base Services	4
USSR Scientific Cooperation	4

POLAND

Current Status, Growth Goals of Microelectronics Industry (Cezary Andrzej Ambroziak; ELEKTRONIKA, No 6, 1984)....	5
Phosphoric Salts Production Capacities, Processes Surveyed (Zygmunt Kowalski; CHEMIK, No 11, Nov 84).....	15

ROMANIA

New Stage in Technical-Scientific Revolution Examined (ERA SOCIALISTA, Nos 19, 20, 10, 25 Oct 84).....	17
Machine-Building Industry Progress, by Ion Crisan Electronics Potential, Data Processing, by Mihai Dragănescu	17
Unity Between Science, Production, by Marin Ivascu	22
	26

Scientific Research Aids Agriculture, by Tiberiu Muresan	32
Role of Chemical Research, by Gheorghe Marcu	37
New Production Forces, by Vasile Pilat	41
Extension of Automation, by Marcel Sirbu	45

26 March 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY
BULGARIA: ACTIVITIES OF CENTRAL INSTITUTE
FOR CHEMICAL INDUSTRY

CONTENTS

BULGARIA

Activities of Central Institute for Chemical Industry (KHIMIYA I INDUSTRIYA, No 8, 1984)	1
Quality, Efficiency, Leadership, by Georgi Pankov	
Chemical Institute Activities, by Dacho Dimitrov	
Developments in Chemical Industry, by Ivo Zlatanov	
Rubber Industry Area, by Kiril Rakovski	
Plastic Industry Area, by Khristo Kabaiyanov	
Sectorial Scientific, Technical Information	
Standardization in Chemical Industry	
Development of Forecasting	
Socialist Labor Organization	
Inventions Listed	
International Cooperation	
Kostenets Chemical Plant	
TsIKhP Directors	
Greeting Messages	
Summary	119

2 April 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

BULGARIA

New Laboratories Under Academy of Sciences Established (DURZHAVEN VESTNIK, 13 Nov 84).....	1
New SM 302 Integrated Circuit Described (Svetoslav Stefanov; RABOTNICHESKO DELO, 16 Nov 84).....	2
Development of Geophysical Sciences Outlined (Dimitur Samardzhiev; RABOTNICHESKO DELO, 30 Nov 84).....	3
Expanded Scientific Training of Commanders Urged (Editorial; NARODNA ARMIYA, 6 Feb 85).....	6
New Products for Computers Described (Mariya Budinova; VECHERNI NOVINI, 18 Jan 85).....	9

CZECHOSLOVAKIA

Tumor Clinic for Children Opened (RUDE PRAVO, 31 Jan 85).....	12
--	----

GERMAN DEMOCRATIC REPUBLIC

Researchers Interviewed on Current Polymer Studies (Thomas Conrad Interview; TRIBUENE, 18 Jan 85).....	13
---	----

HUNGARY

Microcomputers Gain Ground in Business (Attila Kovacs; SZAMITASTECHNIKA, Nov 84).....	17
Hungarian, Soviet Cooperation in High-Tech Fields (SZAMITASTECHNIKA, Nov 84).....	20

Multi-Axis Machining Program (SZAMITASTECHNIKA, Nov 84).....	22
Control for Replacing Nuclear Power Plant Rod Cases (SZAMITASTECHNIKA, Nov 84).....	23
Workpiece Recognition Device (SZAMITASTECHNIKA, Nov 84).....	24
Hungarian Systems Control Equipment (SZAMITASTECHNIKA, Nov 84).....	25
Hungarian Software Firm in Paris (ZERO UN INFORMATIQUE, 15 Oct 84).....	26
Goals of New Long Term Science Research Plan (Istvan Lang; NEPSZABADSAG, 9 Feb 85).....	29
Computerized Gas Distributing System (MAGYAR HIRLAP, 21 Feb 85).....	34
Link to Soviet, International Data Banks Operational (NEPSZABADSAG, 5 Mar 85).....	35

ROMANIA

Achievements, Prospects in Chemical Research (Maria Ionescu; ERA SOCIALISTA, No 1, 10 Jan 85).....	36
---	----

8 April 1985

EAST EUROPE REPORT SCIENCE AND TECHNOLOGY

CZECHOSLOVAKIA: SELECTIONS FROM ORGANIZATIONAL AND COMPUTER TECHNOLOGY

VYBER INFORMACI Z ORGANIZACNI A VYPOCETNI TECHNIKY, No. 1, 1984

CONTENTS

Technical Production Preparation Subsystem, by Jaroslav David	1
VARS SMEP Tests	15
Computer-Aided Electroplating Lines Design	19
Culture Ministry Computer Technology, by Vladimir Smejkal	19
16-Bit SMEP Series, by V. Vojtech	31
SMEP Conference, by Ivan Peceny	64
KEDR Microcomputer, by Ha	77
New Soviet Interface Unit, by Ha	77
Courses for SMEP Users	78
Soviet SM-2M Minicomputer, by Ha	80
Soviet Speech Synthesizer	80
CSSR Computer Development 1983-1990, by Miroslav Kepka	80
Robotron EC 1055 Computers, by Jk	93
Automation in USSR, by A. Halek	95
KDP 723 Memory, by sk	95
Floppy Disk Memories, by Ka	97
French Portable Terminals, by FM	98
New CSSR Electronic Products, by Miroslav Sigl	99
CSSR Microcomputer-Controlled Systems, by A. Halek	108
CSSR Moscow Trade Center, by Flidr	113

16 April 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

CZECHOSLOVAKIA

Design, Theoretical Innovations in Tokamaks Systems (Michal Strida; RUDE PRAVO, 27 Feb 85)	1
New Biology Center in Southern Bohemia (Vladimir Landa Interview; RUDE PRAVO, 9 Mar 85)	4

GERMAN DEMOCRATIC REPUBLIC

'Compromise' Urged in Monitoring Dangers of Dioxin (Hans Swart; SPECTRUM, No 11, 1984)	7
---	---

HUNGARY

Plans, Developments in Robotics (Kristof G. Kocsis; MAGYAR HIRLAP, 28 Feb, 2 Mar 85) ...	11
Physics Research Institute TPA-1148 Popular (Peter Forro; SZAMITASTECHNIKA, Jan 85)	17
Technical College To Offer Information Courses (Sandor Domonkos Interview; SZAMITASTECHNIKA, Jan 85) ..	19
Computer News From Socialist Countries (SZAMITASTECHNIKA, Jan 85)	23
Further Cutbacks on Academy Publications Needed (Erika Zador; MAGYAR HIRLAP, 7 Mar 85)	25

POLAND

New Metal Hardness Tester for Industrial Use (Jan Szlendak, Stefan Zgutka; POMIARY AUTOMATYKA KONTROLA, No 10, Oct 84)	28
New Digital Automatic Ellipsometer for Industrial, Research Use (Kazimierz Brudzewski; POMIARY AUTOMATYKA KONTROLA, No 10, Oct 84)	32
Automated Chemical Batch Process Control Device (POMIARY AUTOMATYKA KONTROLA, No 10, Oct 84)	34

New Electronic Measurement, Control Devices (POMIARY AUTOMATYKA KONTROLA, No 11, Nov 84)	37
Research on CAD/CAM Support for Microprocessor Development Surveyed (Wladzimierz Soinski; PRZEGLAD MORSKI, No 12, Dec 84) ...	42
Materials Combustibility Testing for Underwater Work Environments (Tadeusz Kukula, Zygmunt Sychta; BUDOWNICTWO OKRETOWE, No 1, Jan 85)	54

JPRS-ESA-85-016

22 April 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

INTERNATIONAL AFFAIRS

Berlin-Moscow Scientific Data Transmissions Begun (NEUES DEUTSCHLAND, 21 Jan 85)	1
GDR-CSSR Computer Cooperation Described (Juraj Nemes; RECHENTECHNIK/DATENVERARBEITUNG, No 12, Dec 84)	3
Computers at Brno International Machine Fair (RECHENTECHNIK/DATENVERARBEITUNG, No 12, Dec 84)	5
Soviet Computers Exhibited (RECHENTECHNIK/DATENVERARBEITUNG, No 12, Dec 84)	8
Progress in Technological Cooperation With USSR (SOFIA NEWS, 13 Mar 85)	10
New Product for Computers Advertised (SOFIA NEWS, 13 Mar 85)	12
Computer Products Advertised (SOFIA NEWS, 20 Mar 85)	13

BULGARIA

Scientists Discuss State of Laser Technology, Urgent Problems (RABOTNICHESKO DELO, 6 Mar 85)	15
Debate on Optical Electronics	15
Statements by Attending Scientists	18
Fruitful Cooperation	19
Items for Immediate Application	20
Competition Suggestions	20
Laser Application, Prospects	21

CZECHOSLOVAKIA

New Scientific Center Established (Michal Strida; RUDE PRAVO, 6 Mar 85)	23
--	----

Conference on Preventive Health Care (RUDE PRAVO, 25 Mar 85)	26
Briefs	
New Radioimmunology Diagnostic Device	27
Computers for CEMA Countries	27
HUNGARY	
Decline in Research, Development Resources Noted for 1983 (MAGYAR HIRLAP, 12 Mar 85)	28
POLAND	
Rundown on New Freight Car Unloader, All-Purpose Container (PRZEGLAD MACHANICZNY, No 24, Dec 84)	30
Briefs	
New Miniaturized Thermocouple	33
Aluminum Smelter Closed	33
Laser Guided Excavator	33
Ship Hull Splicing	33
New Photosensitive Film	33
New Oxo Alcohols Plant	34
'Camac' Element Production	34
Satellite Ground Station Imports	34
Chemical Plant Expansion	34
New Pentaerythritol Process	34

2 May 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

INTERNATIONAL AFFAIRS

- | | |
|--|---|
| Rundown on Bloc, Polonia Computer Exhibits at Poznan Fair
(Jacek Zebrowski; INFORMATYKA, No 10, Oct 84) | 1 |
|--|---|

GERMAN DEMOCRATIC REPUBLIC

- | | |
|--|----|
| Scientist Criticizes Call for Increased Technological Research
(Ulrich Hofmann, et al.; SPECTRUM, No 1, 1985) | 14 |
|--|----|

HUNGARY

- | | |
|--|----|
| Proton Induced X-Ray Emission Method, Its Application in Analytics
(Gyula Szabo; FINOMMECHANIKA, MIKROTECHNIKA, No 6, Jun 84) | 21 |
|--|----|

- | | |
|---|----|
| Superconductive Quantum Interferometer (Squid), Its
Analytical Applications
(Sandor Meszaros, Kalman Vad; FINOMMECHANIKA,
MIKROTECHNIKA, No 6, Jun 84) | 24 |
|---|----|

- | | |
|--|----|
| Vacuum Engineering Devices, Equipment
(Istvan Berecz; FINOMMECHANIKA, MIKROTECHNIKA, No 6,
Jun 84) | 25 |
|--|----|

- | | |
|--|----|
| Electron Spectroscopy, Surface Testing at Atomki
(Laszlo Kover; FINOMMECHANIKA, MIKROTECHNIKA,
No 9, Sep 84) | 27 |
|--|----|

- | | |
|---|----|
| Goals, Achievements of Microelectronics Program
(Laszlo Schronk; MERES ES AUTOMATIKA, No 11, 1984) | 28 |
|---|----|

- | | |
|--|----|
| Commissioner for Microelectronics Program Quizzed on Progress
(Mihaly Sandory Interview; MERES ES AUTOMATIKA,
No 11, 1984) | 36 |
|--|----|

- | | |
|---|----|
| Uses of, Experiences in Production of Custom Designed IC's
(Ferenc Heksch; MERES ES AUTOMATIKA, No 11, 1984) | 41 |
|---|----|

- | | |
|--|----|
| Modern Equipment for Manufacture of IC's in Hungary
(Janos Erdelyi; MERES ES AUTOMATIKA, No 11, 1984) | 49 |
|--|----|

Progress, Goals in Biotechnology Summarized (NEPSZABADSAG, 13 Mar 85)	54
Development, Establishment of Telephone Switching in Hungary (Frigyes Berecz; HIRADASTECHNIKA, No 11, Nov 84)	57
Trends in Telecommunications R&D in 1986-1990 (Gyula Tofalvi; HIRADASTECHNIKA, No 11, Nov 84)	61
Family of Small Capacity Digital Subexchanges Developed (Imre Horvath; HIRADASTECHNIKA, No 6, Jun 84)	70
U400 Gate Array, Design Methods (Piroska Szentpeteri, Ferenc Heksch; HIRADASTECHNIKA, No 7, Jul 84)	72
Production of Nickel Thin Film Reactors With Chemical Reduction Process (Gabor Bessenyei, et al.; HIRADASTECHNIKA, No 8, Aug 84).	73
Parts Trade Tasks of Elektromodul During Central Electronics Development Program Period (Gabor Iklody; HIRADASTECHNIKA, No 9, Sep 84)	75
Electronic Parts Are Object of Concern (Editorial, Gyula Tofalvi; HIRADASTECHNIKA, No 10, Oct 84)	82
Twenty-Year Development of ATSz-K (Sandor Szilagyi; HIRADASTECHNIKA, No 10, Oct 84)	85

10 May 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

INTERNATIONAL AFFAIRS

GDR-USSR Computer Trade, Cooperation Outlined (GDR EXPORT, No 4, 1984)	1
Robotron Director Reports Achievements, by Friedrich Wokurka	1
ADP Installations Described	3

BULGARIA

Deputy Minister Dwells on Computer Training Programs (Stoyan Markov Interview; OTECHESTVO, No 5, 12 Mar 85) ...	5
Use of Lasers in Various Areas Outlined (Marko Markov; ZEMEDELZO ZNAME, 19 Mar 85)	8

CZECHOSLOVAKIA

Vascular Implants Manufactured in Brno (Frantisek Zdobina; PRAVDA, 9 Mar 85)	10
Briefs	
Cable TV Tested	13

GERMAN DEMOCRATIC REPUBLIC

Process Control Systems for Largely Automated Manufacturing (W. Fritzsch, et al.; MESSEN STEUERN REGELN, No 10, 1984)	14
CAD Systems for Electronic Component Design Reviewed (Siegfried Pilz; MESSEN STEUERN REGELN, No 10, 1984)	33
Applications, Specifications of Robotron CAD-CAM Work Stations (Herbert Willen; MESSEN STEUERN REGELN, No 10, 1984)	54
Soviet Institute Director on GDR-USSR Welding Technology (Boris Paton Interview; VOLKSSTIMME, 29 Dec 84)	67

Mathematical Aspect of Welding Technology Research Discussed (Alexis Neumann Interview; NEUE ZEIT, 14 Jul 84)	70
Applicability of Modular Vs Universal Robots Discussed (Siegfried Kiese Interview; WOCHENPOST, No 33, 17 Aug 84)	73
New Sensor for Industrial Metrology Developed (NEUER TAG, 5 Jan 85)	77
Metal Forming Combine To Increase CAD-CAM Application (Walter Florath; NEUER TAG, 4 Jan 85)	79
Machine Tool Modernization Effort Said Lacking Uniform Support (Rainer Lampe; VOLKSSTIMME, 11 Dec 84)	82

HUNGARY

New Markets for NC, CNC Machine Tools (NEPSZABADSAG, 12 Apr 85)	85
--	----

POLAND

Details on Computer Hardware From Polonia Firms (INFORMATYKA, Nos 11, 12, Nov, Dec 84)	86
AC 805 Personal Computer, by Ryszard Stefanowski	86
IMZ-80 Microcomputer, by Wieslaw Kaska	89
New Designs From Electronics R&D Center (POMIARY AUTOMATYKA KONTROLA, No 12, Dec 84)	93
Hybrid Microelectronic A/D, D/A Circuitry, by Wladyslaw Wielich	93
Functional Tester for LSI Circuits, by Andrezej Dziewa, Waclaw T. Kozlowski	99
Military Designs for Radar Rangefinder for Coal Mines (Jerzy Chojnacki; PRZEGLAD TECHNICZNY, No 5, 3 Feb 85)	101

21 May 1985

EAST EUROPE REPORT

SCIENCE AND TECHNOLOGY

CONTENTS

INTERNATIONAL AFFAIRS

- Paton Institute Expert on GDR-USSR Welding Research
 (Vladimir Ignatyev Interview; BERLINER ZEITUNG, 16-17 Mar 85) 1

CZECHOSLOVAKIA

- International Cooperation in Space Exploration
 (Ivana Balkova; TRIBUNA, 27 Mar 85) 3
- Uses of Laser Technology Described
 (RUDE PRAVO, 3 Apr 85) 6

GERMAN DEMOCRATIC REPUBLIC

- Tighter Legal Strictures on Computer Software Trade Urged
 (Elke Heera; WIRTSCHAFTSRECHT, No 1, Jan 85) 8
- Machine Tool Exhibit at 1985 Leipzig Spring Fair Viewed
 (NEUE ZEIT, 15 Mar 85) 15
- Microelectronics Equipment at 1985 Leipzig Spring Fair Listed
 (NEUES DEUTSCHLAND, 11 Mar 85) 18
- Use of Microelectronics in Industry Assessed
 (NEUES DEUTSCHLAND, 25 Mar 85) 22
- Electron Physics Institute's Microelectronics Research Viewed
 (Irene Gotthardt; NATIONAL ZEITUNG, 23-24 Feb 85) 24

HUNGARY

- Biotechnologists Receive High State Prize
 (Lajos Alfoldi, et al Interview; MAGYAR HIRLAP, 4 Apr 85) . 26
- Personnel of Nuclear Power Plant Win Prize
 (Zador; MAGYAR HIRLAP, 4 Apr 85) 29

ROMANIA

Research on Products Obtained by Powder Metallurgy (H. Colan; METALURGIA, Dec 84)	31
Importance of Science, Technology to Country's Development (Adrian Magureanu; ERA SOCIALISTA, No 5, 10 Mar 85)	38

6 June 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

GERMAN DEMOCRATIC REPUBLIC

FRG Institute Examines GDR's Need for Western Technology (VDI NACHRICHTEN, No 49, 7 Dec 84).....	1
Legal Aspects of Computer Software Exchange Examined (Klaus Bernstien, Klaus Foerster; WIRTSCHAFTSRECHT, No 4, 1984).....	3
Measures To Heighten Practical Demands on R & D Dubbed 'Fiction' (Guenter Lauterbach; FS ANALYSEN, No 6, 1984).....	10
Institute Director Describes East German Biotechnology Research (Manfred Ringpfeil Interview; WOCHENPOST, No 3, 18 Jan 85).....	18
Minister for Electrical Engineering, Electronics Interviewed (Felix Meier Interview; DER MORGEN, 22 Feb 85).....	23
Process Automation, IR 700 Controller at Leipzig Fair (ELEKTRIE, Vol 39, No 2, 1985).....	26
Industrial Facility Construction Combine (IWE WIRTSCHAFTSDIENST, Vol 25, No 29, 27 Jul 84).....	30
New Refractory Concrete Described (NEUE ZEIT, 22 Jan 85).....	31
Briefs	
Highlights of Leipzig Spring Fair	33
Training Course on Atomic Energy	33
Increased Steel Production Reported	34
Computer Graphics Lab Planned	34

New Plant for Biotechnology	35
Inventors' School Launched	35
GDR-USSR Engineering Cooperation	35
Metal Rolling Procedure Improved	35
New Measuring Device Developed	35
Multi-Axis Robot Developed	35
Production Automation Improved	36
Flexible Manufacturing System for USSR	36
Steel Mills Shift Workers	36
Sensor Technology Research Described	37
Robot Production Goals Cited	38
Center Produces CNC Controllers	38
New CNC Machine Tool	39
Infrared Etching Method Improved	39
Steel Mill Repairs Reported	39
Glass Production Automated	39
Diesel Locomotive Reconstruction Planned	39
New Fluorescent Microscope Described	40
Universal Chucking Device	40

HUNGARY

Progress in Microelectronics Production, Trade Assessed (Mihaly Sandory; NEPSZABADSAG, 10 Apr 85).....	41
---	----

POLAND

New Engineering Products Advertised (POLISH ENGINEERING, No 5-6, May-Jun 85).....	44
--	----

ROMANIA

Progress in Automation, Robotics Described (Ion Geambasu Interview; FLACARA, 25 Jan 85).....	48
---	----

21 June 1985

EAST EUROPE REPORT

SCIENCE AND TECHNOLOGY

CONTENTS

CZECHOSLOVAKIA

Treatment of Radioactive Waste Discussed (RUDE PRAVO, 23 Apr 85)	1
Information on Inventions (PRAVDA, 11 Apr 85)	3

GERMAN DEMOCRATIC REPUBLIC

Institute Director Calls for Closer Cooperation With Industry (Johannes Barthel; SPECTRUM, No 3, 1985)	4
New Metal Coating Method Developed (Tilo Scholze; FREIHEIT, 29 Mar 85)	6

HUNGARY

Work in Immunology Described (Gyozo Petranyi Interview; MAGYAR HIRLAP, 25 Apr 85) ..	8
National Exhibits at MIPEL '85 (MAGYAR HIRLAP, 19 Apr 85)	9
Neumann Society Meeting, Awards Presentation (SZAMITASTECHNIKA, Feb 85)	11
Updating of ES Series II Completed (Zoltan Szabo; SZAMITASTECHNIKA, Feb 85)	14
Gothenburg University Time Sharing System for Hungary (Andras Gyulai; SZAMITASTECHNIKA, Feb 85)	19
More Favorable Duties for Personal Computers (Attila Kovacs; SZAMITASTECHNIKA, Feb 85)	23
Kiyev Computers Described (U. M. Rilskiy; SZAMITASTECHNIKA, Feb 85)	25
Railways Renovating Computer System (SZAMITASTECHNIKA, Feb 85)	27
Plan Variants Program Marketed (SZAMITASTECHNIKA, Feb 85)	28

9 July 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

CZECHOSLOVAKIA

New Biology Center Opened (RUDE PRAVO, 14 May 85).....	1
Environment Degradation Studied (Jaroslav Michalek; RUDE PRAVO, 15 May 85).....	3

HUNGARY

Important Plant Protective Agent Sold to Multinational Enterprise (Gabor Pal Peto; NEPSZABADSAG, 6 Jun 85).....	5
Physics Research Institute Continues Work on Accelerators (Laszlo Egyed; MUSZAKI ELET, 13 Apr 85).....	8
Csepel Improves on Japanese Robots (Jozsef Marton; MUSZAKI ELET, 25 May 85).....	11
Software Exports Studied (Kristof G. Kocsis; MAGYAR HIRLAP, 4 May 85).....	14
ES 1034, ES 1032 Computers Compared (Tibor Nanassy; SZAMITASTECHNIKA, Mar 85).....	18
Socialist Countries' Production of Microcomputers in 1984 (Peter Broczko; SZAMITASTECHNIKA, Apr 85).....	23
ES 1055 M as Part of the Videoton Network System (SZAMITASTECHNIKA, Apr 85).....	31
ES 1045 at Danubian Iron Works (Attila Kovacs; SZAMITASTECHNIKA, Mar 85).....	34
International Contacts of Iron Industry Research Institute (Zsuzsa Ban; MUSZAKI ELET, 13 Apr 85).....	36
Rare Earth Metal Magnets at Iron Industry Research Institute (SZAMITASTECHNIKA, Mar 85).....	39

30 July 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

BULGARIA

Applications of Laser Technology Described (BULGARIA TODAY, No 448, 1985)	1
--	---

CZECHOSLOVAKIA

Scientific Involvement in Worldwide Context (PRAVDA, 6 Jun 85)	7
Anniversary of Czech Nuclear Institute (Miloslav Hron; RUDE PRAVO, 5 May 85)	8
Research in Immunopharmacology (Blahoslav Braun; RUDE PRAVO, 5 Jun 85)	11
Drugs Manufactured in Slovakia (PRAVDA, 6 Jun 85)	14
Briefs	
Immunobiological Anniversary	17
Cooperation in Genetic Engineering	17

GERMAN DEMOCRATIC REPUBLIC

Heavy Machinery Combine Producing Microelectronic Equipment To Order (Kaethe Aebi; NEUES DEUTSCHLAND, 16 Apr 85)	18
--	----

HUNGARY

Economic, Social Significance of Genetic Research (AKADEMIAI KOZLONY, 14 Nov 84)	21
Briefs	
Purchase of Swedish Biotechnology Machines	25
Robot Engineering Enterprise	25

ROMANIA

Importance of Automation, Robotization in Economy (Aristide Predoi; ERA SOCIALISTA, No 8, 25 Apr 85)	26
---	----

JPRS-ESA-85-024

7 August 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

CZECHOSLOVAKIA

Slovak Academy Reviews, Plans (RUDE PRAVO, 13 Jun 85).....	1
R & D Society Publishes Manifesto (RUDE PRAVO, 7 Jun 85).....	3
Briefs Soviet Cooperation in R&D	4

GERMAN DEMOCRATIC REPUBLIC

Plans for Long-Term Introduction of Flexible Automation Discussed (Peter Krejcirik, et. al.; WIRTSCHAFTSWISSENENSCAFT, Vol 33, No 4, 1985).....	5
---	---

HUNGARY

Budapest-Moscow Data Transfer Link (Gitta Takacs; SZAMITASTECHNIKA, May 85).....	25
Development, Production of Displays in Hungary (Kovacs; SZAMITASTECHNIKA, May 85).....	27
New Hungarian Matrix Printer To Go Into Production (SZAMITASTECHNIKA, May 85).....	29
Computer Network for Agricultural Commerce (SZAMITASTECHNIKA, May 85).....	31
Czech Computer Hardware Displayed in Budapest (SZAMITASTECHNIKA, Jun 85).....	33

Standardization of Computer Terminology Urged (Ivan Szabo; SZAMITASTECHNIKA, Jun 85).....	35
Computers in Chemical Industry (SZAMITASTECHNIKA, Jun 85).....	43
Academy Research Institute Products Win Fair Prizes (Istvan Palugyai; MAGYAR HIRLAP, 15 Jun 85).....	46

13 August 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

CZECHOSLOVAKIA

Technology, Natural Science Studies Promoted (PRAVDA, 21 Mar 85).....	1
Patent Literature Publicized (Jozef Supsak; PRAVDA, 18 Mar 85).....	2

GERMAN DEMOCRATIC REPUBLIC

Insufficient Equipment, Materials Seen Holding Up R&D (Werner Lange; SPECTRUM, No 4, 1985).....	3
--	---

HUNGARY

Politbureau Report on Achievement of Science Policy Objectives (MAGYAR TUDOMANY, No 4, 1985).....	7
Instrumentation for VEGA Project Described (Andras Varga Interview; MAGYAR HIRLAP, 4 Jul 85).....	27
Regulations Encourage Use of Innovative Developments (Dezso Sugar Interview; MAGYAR HIRLAP, 9 Jul 85).....	30
Development of More Marketable Software Urged (Gitta Takacs; FIGYELO, 20 Jun 85).....	33
Official Interviewed on Nuclear Waste Disposal (Budapest Domestic Service, 16 Jul 85).....	40
Budapest Notes 'Implication' of Incinerator Planned for Dorog (Budapest Domestic Service, 18 Jul 85).....	42
Briefs	
Meeting of Plasma Research Council	43
Report on Computers	43

JPRS-ESA-85-026

29 August 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

CZECHOSLOVAKIA

New Biology Research Center in Southern Bohemia (Dusan Brabec; PRAVDA, 13 Jun 85).....	1
Stress Adaptation Studied (Marek Jensik; RUDE PRAVO, 19 Jun 85).....	3
Academy Cooperates With Industry (Stanislav Stibor; RUDE PRAVO, 19 Jun 85).....	5
Public Health Research Needs Specified (L. Rosival; NOVE SLOVO, 25 Jul 85).....	8
CSSR Research Cooperation With CEMA Countries (Anton Blazej; NOVE SLOVO, 25 Jul 85).....	11
Improved Teaching Methods for Science, Technology (Z. Caha; STROJIRENSTVI, No 4, 1985).....	15

GERMAN DEMOCRATIC REPUBLIC

Key Role of Electronics in Industry, Economy Analyzed (Klaus Krakat; FS ANALYSEN, No 6, 1984).....	19
Production Planning Manager on CAD-CAM Use (Reinhard Mattern; NEUES DEUTSCHLAND, 25 Jun 85).....	61
Modernization Steps in Automation Equipment Enterprise Cited (Werner Wege Interview; NEUES DEUTSCHLAND, 25 Jun 85).....	63
Progress in Robotics Design, Production Described (Juergen Bauer; NEUES DEUTSCHLAND, 25 Jun 85).....	65

HUNGARY

Computer, Electronics Exports Foundering (Margit Racz; FIGYELO, 18 Jul 85).....	67
--	----

Statistical Office Computer Policy Crucial (FIGYELO, 11 Jul 85).....	71
Briefs	
Hungarian, Indian Scientific Cooperation	74
POLAND	
Contents of Latest Automation, Cybernetics Journal Summarized (ARCHIWUM AUTOMATYKI I TELEMECHANIKI, No 4, 1984).....	75
High-Tech Journals Summarize Contents (MECHANIK, No 1, 1985; POMIARY AUTOMATYKA KONTROLA, No 3, Mar 85).....	78
Advances in Mechanical Engineering	78
Advances in Measurement Technology	79

ROMANIA

Shortcomings in Implementations of Solar Energy Plans (Mihail Florescu; FLACARA, 31 May 85).....	82
---	----

12 September 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

BULGARIA

Mental Health Problems, Treatment Methods Surveyed (A. Zhablenski, Vl. Ivanov; S UVREMENNA MEDITSINA, No 6, 1985)	1
---	---

CZECHOSLOVAKIA

Universities Cooperate With Industry (Michal Strida; RUDE PRAVO, 24 Jul 85)	15
Workers Voice Dissatisfaction (HALO SOBOTA, 29 Jun 85)	19
Research on Mining in Northern Bohemia (Blahoslav Braun; RUDE PRAVO, 17 Jul 85)	23

POLAND

New Machinebuilding Industry Products Reported (POLISH ENGINEERING, No 2, Mar-Apr 85)	26
Transfer Machine Type LSP 493	26
Multipurpose Woodworking Machine DYGA	26
Programmer-Controlled Milling Machine	27
High-Output Electroplating Automatic Equipment	27
Quadding Machines	28
Longwall Shield Lining	29
Latest Model of Motor Vehicle From Jelcz	29
Measuring Linear Displacements	30
Report on Domestic Turbine Generator Performance (Jerzy Przybysz; ENERGETYKA, No 5, May 85)	31
New Portable Oil Cleaning Machine (PRZEGLAD MECHANICZNY, No 9, May 85)	36
Mera-KFAP Measurement Technology Plant Profiled (POMIARY AUTOMATYKA KONTROLA, No 3, Mar 85)	37

Domestically Refined Industrial Lubricants Profiled (NAFTA, No 5, May 85)	39
Uses of 'Glifol' Oils, by Antoni Pasierb, et al.	39
New Tinplate Rolling Lubricant, by Wladyslawa Grabowska	42
Briefs	
Electron Accelerator Meters	46

26 September 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

INTERNATIONAL AFFAIRS

- | | |
|---|---|
| Symposium on Romanian Computers Held in Prague
(TECHNICKY TYDENIK, 16 Jul 85)..... | 1 |
|---|---|

CZECHOSLOVAKIA

- | | |
|---|----|
| New Benefits for Working Retirees
(RUDE PRAVO, 22 Jun 85)..... | 3 |
| Workers Speak Out
(HALO SOBOTA, 27 Jul 85)..... | 7 |
| Report on Oncological Research
(Michal Strida; RUDE PRAVO, 31 Jul 85)..... | 10 |
| Conference on Polymers Held in Prague
(Vladimir Kubanek Interview; RUDE PRAVO, 17 Jul 85)..... | 13 |
| Use of Mycorrhizal Fungi in Tree Culture
(Michal Strida; RUDE PRAVO, 10 Apr 85)..... | 16 |

POLAND

- | | |
|---|----|
| Computerized Freight Car Traffic Management System Profiled
(Stanislaw Chadrych; AUTOMATYKA KOLEJOWA, No 3, Mar 85).... | 19 |
| Flaws in Soviet Marine Engine Fuel Injectors Analyzed
(Jozef Drozdowski, Andrzej Sadowski; BUDOWNICTWO
OKRETOWE, No 5, May 85)..... | 30 |
| Recent Developments in Nonferrous Metals Applied Research
(RUDY I METALE NIEZELAZNE, No 5, May 85)..... | 39 |
| Briefs | |
| New Sterilizer Thermometer | 43 |
| New Sheet Metal Press | 43 |
| Cosmic X-ray Radiation Research | 43 |

ROMANIA

Plans for Expansion of Scientific Research, Technology
(Florin Teodor Tanasescu; ERA SOCIALISTA, No 13,
10 Jul 85)..... 44

JPRS-ESA-85-029

30 September 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

HUNGARY

Instrument Used on Salyut-6 Described (Viktor Amaczi; NEPHADSEREG, 27 Jul 85).....	1
Need for Priorities in Electronics R & D (Zsuzsa Szentgyorgyi; NEPSZABADSAG, 6 Aug 85).....	5
Multiple Uses of M80 Microcomputer (Attila Kovacs; SZAMITASTECHNIKA, Jul 85).....	9
Mikromodul Joint Enterprise (SZAMITASTECHNIKA, Jul 85).....	12
Unspectacular Computer Display at Fair (SZAMITASTECHNIKA, Jul 85).....	15
Pannongraphics, New Joint Enterprise (SZAMITASTECHNIKA, Jul 85).....	17
Professional Personal Computers (Sandor Hauzman; SZAMITASTECHNIKA, Jul 85).....	18
Export of Software Developing System (SZAMITASTECHNIKA, Jul 85).....	20

POLAND

New, Refined Metallurgical Product Patents for 1984 Listed (Michal Musial; HUTNIK, Nos 1, 4, 6, Jan, Apr, Jun 85) ..	22
---	----

7 October 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

BULGARIA

- | | |
|--|---|
| Failure To Improve Air Traffic Control System Criticized
(Veselka Marinova; RABOTNICHESKO DELO, 28 Aug 85)..... | 1 |
|--|---|

GERMAN DEMOCRATIC REPUBLIC

- | | |
|--|----------|
| Image Processing Systems, Potential Reviewed
(A. Geschke, R. J. Vilser; NEUE TECHNIK IM BUERO, No 1
1985)..... | 4 |
| Graphics Module for Plotting Conductor Diagrams
(J. Reinaecker; NEUE TECHNIK IM BUERO, No 1, 1985)..... | 7 |
| Briefs
Titanium Microalloy Steel Tested | 8 |

POLAND

- | | |
|--|----|
| 'ZAMET' Line of Soaking Furnaces Profiled
(Andrzej Taranczewski; POLISH TECHNICAL REVIEW, No 1,
1985)..... | 9 |
| 'ELTERMA' Line of Heat Treatment Furnaces
(Zdislaw Szarapanowski; POLISH TECHNICAL REVIEW, No 1,
1985)..... | 17 |
| Data on Laminar Air Flow Chamber
(POLISH TECHNICAL REVIEW, No 1, 1985)..... | 21 |
| Design Engineer on Development of Pulsed Heating Furnaces
(Kazimierz Suchon Interview; POLISH TECHNICAL REVIEW,
No 1, 1985)..... | 22 |
| New Products in Chemistry, Metalworking, Electronics, Other
Fields Reported
(POLISH TECHNICAL REVIEW, No 1, 1985)..... | 27 |
| Refractory Properties of Beta-Alumina Ceramics in Molten Sodium
(Grzegorz Rog; SZKLO I CERAMIKA, No 2, 1985)..... | 35 |

JPRS-ESA-85-031

9 October 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

INTERNATIONAL AFFAIRS

- GDR-USSR Joint Training of Electrical Engineers Reviewed
(Siegfried Foerster; PRESSE-INFORMATIONEN, No 66, 11 Jun 85) 1

HUNGARY

- Advanced Process for Metal Glass Fails Industrial Adoption
(Marton Szluka; MAGYAR HIRLAP, 22 Aug 85) 3

POLAND

- Advances in Radiobiological Research
(NUKLEONIKA, No 7-8, 1982) 7
- Hypoxic Irradiation Effects, by A. M. Dancewicz,
M. M. Jelenska 7
- Tritium Ingestion in Rats, by Zofia Pietrzak-Flis,
Irena Radwan 14
- Advances in Optoelectronic, Nuclear Reactor, Radiobiological
Research
(NUKLEONIKA, No 9-10, 1982) 26
- High Voltage Optocoupler, by Jacek Stanislawski,
Ewa Serebrankow 26
- Fuel Rod Burnup Rates, by W. Smulek, et al. 37
- Radiation-Induced Cell Damage, by G. J. Koteles 44
- Fast-Neutron Damage to Plant Tissues, by Jadwiga H.
Supniewska, 61

28 October 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

ALBANIA

Achievements, Prospects in Chemical Sciences (Muharrem Frasher; BULETIN I SHKENCAVE TE NATYRES, No 4, Oct-Dec 84).....	1
Achievements, Prospects in Biological Sciences Reviewed (Stefa Kongjika, Leke Gjiknuri; BULETIN I SHKENCAVE TE NATYRES, No 4, Oct-Dec 84)	7

BULGARIA

Description of ES8566 Computer Terminal (RADIO, TELEVIZIYA, ELEKTRONIKA, No 7, 1985)	12
Causes of Resistance to New Technology Explained (Petur Ivanov; POLITICHESKA AGITATSIYA, No 14, 1985)...	13

CZECHOSLOVAKIA

CEMA Cooperation in R&D Planned (RUDE PRAVO, 18 Sep 85)	18
--	----

GERMAN DEMOCRATIC REPUBLIC

Coordination of ESER Software, Applications Research Discussed (J. Vogel, NEUE TECHNIK IM BUERO, No 4, 1985)	20
Robotron Branch VEB Tasked With Software Development (H.-J. Lodahl; NEUE TECHNIK IM BUERO, No 4, 1985).....	24

HUNGARY

Table of Contents MAGYAR ELEKTRONIKA No 1, 1985 (MAGYAR ELEKTRONIKA, No 1, 1985)	26
Laszlo Pal Discusses Policy (Laszlo Pal Interview; MAGYAR ELEKTRONIKA, No 1, 1985)..	30

Role of Computer Engineering, Automation Research Institute (Istvan Eszes; MAGYAR ELEKTRONIKA, No 1, 1985)	40
Computer Engineering Devices at SZTAKI (Pal Verebely; MAGYAR ELEKTRONIKA, No 1, 1985)	44
Present, Prospects of Computer Controlled Manufacturing Cells (Jozsef Hatvany, et al.; MAGYAR ELEKTRONIKA, No 1, 1985). .	48
Officials of MOM, TECHNOVA Quizzed (MAGYAR ELEKTRONIKA, No 1, 1985)	58
Profile of Physics Research Institute Presented (OTLET, 27 Jun 85)	62
Organizational Breakdown, by Ferenc Szabo	62
Opinion of Notables	64
Circuitry Design	67
Lasers, Glass Metal	68
Particle, Nuclear Physics	70
Space Instruments	71
Computers	73
Research, Production	75
Soviet Cooperation in Computer Networks, Teledata Processing (Geza Odor; MUSZAKI ELET, 17 Aug 85)	77
Remedy Sought for Declining Agricultural Research (Janos Borsos Interview; MUSZAKI ELET, 17 Aug 85).....	79
Council, Computer Systems Held Ineffective (Matyas Gaspar Interview; MAGYAR HIRLAP, 7 Sep 85).....	83
POLAND	
Advances in Anticorrosive Coatings, Casting Technology (RZECZPOSPOLITA, 7-8 Sep 85)	86

5 November 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

CZECHOSLOVAKIA

Czechoslovak Metrology Surveyed (Stanislav Stibor; RUDE PRAVO, 21 Aug 85).....	1
---	---

Information Scientist Surveys GDR Computer Technology (W. Cimander; NACHRICHTENTECHNIK-ELEKTRONIK, Vol 35, No 2, 1985).....	4
---	---

GERMAN DEMOCRATIC REPUBLIC

Machinery Combine Launches Microelectronics Research Center (Kaethe Aebi; NEUES DEUTSCHLAND, 16 Apr 85).....	6
---	---

Robotron Hardware Compatible Programming Languages Surveyed (W. Nyderle; NEUE TECHNIK IM BUERO, Vol 29, No 4, 1985)...	9
---	---

Call To Expand Information Network for Basic Research (Joachim Kramer; DAS HOCHSCHULWESEN, Vol 33, No 6, Jun 85).....	14
---	----

GDR Scientists Develop Electroluminescence Display (Christian Waldner; VOLKSSTIMME, 20 Jun 85).....	21
--	----

Advantages of Fully Automated Night-Shift Production Viewed (Werner Kriesel; LEIPZIGER VOLKSZEITUNG, 22-23 Jun 85)....	23
---	----

Scientists Cite Uses of Cryogenics, Low Temperature Measurement (Rudolf Knoener, Reinhold Weiss; NEUES DEUTSCHLAND, 27-28 Jul 85).....	25
--	----

Director of Industrial Facility Construction Combine Interviewed (Klaus-Guenter Sorg Interview; BERLINER ZEITUNG, 23 Jul 85).....	28
---	----

Call To Improve Scientific-Industrial Research Cooperation (NEUES DEUTSCHLAND, 30 Jul 85).....	32
---	----

Major Automatic Control Equipment Enterprise Assessed (Klaus Hardenberg; MAERKISCHE VOLKSSTIMME, 31 Jul 85)....	34
--	----

Integration of Office Computer Systems, Networking Discussed (Wolfgang Schoppan; RECHENTECHNIK-DATENVERARBEITUNG, Vol 22, No 8, 1985).....	37
Chairman of New Information Sciences Society Interviewed (RECHENTECHNIK-DATENVERARBEITUNG, Vol 22, No 8, 1985).....	39
Society's Founding Announced	39
Text of Interview, Dieter Hammer Interview	40
Briefs	
New Semiconductor Measuring Transducer	43
New CO ₂ Laser Series	43
Gear-Grinding Machine Production Automated	43
Glass, Materials Processing Training,	44
Alloy Testing Method Developed	44
Plasma-Cutting Devices for Robots	45
Circuit Layout Expands Memory	45
Semiconductor Sensor Technology Viewed	46
Microcomputer-Controlled Teleprinter	47
New Process Controller Developed	47
Laser Use in Circuit Production	48
Electronic Switching System Improved	48
Electron-Beam Welding in Use	49
Real-Time Operating System	49

18 November 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

CZECHOSLOVAKIA

Anniversary of CSSR Nuclear Research (Josef Tucek Interview; RUDE PRAVO, 10 Jul 85).....	1
Microorganisms Used Against Pests (Karel Muller, Jiri Kafka; RUDE PRAVO, 30 Jul 85).....	4
CSSR Physicists Meet (Juraj Sebesta; PRAVDA, 5 Sep 85).....	7
Czech-Soviet Cooperation in Automation Research (Jozef Supsak; PRAVDA, 27 Sep 85).....	9
Briefs	
Colorimetric Testing	14

GERMAN DEMOCRATIC REPUBLIC

Research Center Director Assesses Robotics Technology Progress (Peter Ulrich; PRESSE-INFORMATIONEN, No 56, 17 May 85)....	15
CAD/CAM Systems for IC Development, Manufacture (Horst Elschner, et. al.; EDV-ASPEKTE, No 2, 1985).....	18
Machine Tool Combine's Level of Automation Assessed (B. Zeidler; FERTIGUNGSTECHNIK UND BETRIEB, Vol 35, No 6, 1985).....	28
Implementation of Computer-Aided Production Systems Detailed (G. Zemann; FERTIGUNGSTECHNIK UND BETRIEB, Vol 35, No 6, 1985).....	34

Coordination of Office Computer Integration Outlined (Wolfgang Schoppan; RECHENTECHNIK-DATENVERARBEITUNG, Vol 22, No 8, 1985).....	41
Briefs	
New PCB Drafting Machine	43
Special Glass, Ceramics Use	43
New ESER Virtual Operating System	44
Parallel Access to ESER Databases	44
University-Combine Research Cooperation	45
HUNGARY ..	
Success Story of High Tech Optical Works Continues (Zsuzsa Ban; MUSZAKI ELET, No 15, 20 Jul 85).....	46
Present, Future of Microelectronics at Home, Abroad (Mihaly Sandory; SZAMITASTECHNIKA, Aug-Sep 1985).....	49
Graphics Devices at International Fair (SZAMITASTECHNIKA, Aug-Sep 1985).....	55
New Microperipherals at Budapest International Fair (SZAMITASTECHNIKA, Aug-Sep 85).....	58
MXT: New Microcomputer of Muszertechnika (Attila Kovacs; SZAMITASTECHNIKA, Aug-Sep 85).....	59
Role of Hungarian Tokamak Explained (Gyorgy Foris; MAGYAR HIRLAP, 12 Sep 85).....	61
Hungary Participates in Space Telecommunications (NEPSZAVA, 26 Sep 85).....	62
Computer Firm Thrives on Non-bloc Software Exports (Istvan Weisz Interview; MAGYAR HIRLAP, 11 Oct 85).....	64
Essential Support for Technical Professionals Still Lags (Laszlo Fodor Interview; MAGYAR NEMZET, 14 Oct 85).....	67
POLAND	
Research on Durability of Nuclear Power Plant Tube Sheet Welds (Ewa Hajewska, et. al.; PRZEGLAD ELEKTROTECHNICZNY, No 3, Mar 85).....	71
ROMANIA	
Successes in Nuclear Medicine Described (Tiberiu Pop Interview; MAGAZIN, 28 Aug 85).....	75
Personal Computers Produced in Country (Teodor Purcarea; COMERTUL MODERN, No 3, May-Jun 85).....	78
Briefs	
Research on Pesticide Microincapsulation	82

JPRS-ESA-85-035

22 November 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

BULGARIA

Bulgarian Academy of Sciences: 1984 Achievements, Future Tasks (SPISANIE NA BULGARSKATA AKADEMIYA NA NAUKITE, No 4, 1985).....	1
Statement on 1984 Report, by Blagovest Sendov	1
Discussion of Report	7
1985 Pledge of Academy of Sciences	27
Concluding Speech of Academician Balevski, by Angel Balevski	30
Prospecting for New Mineral Deposits Encouraged (Ivan Kostov; SPISANIE NA BULGARSKATA AKADEMIYA NA NAUKITE, No 4, 1985).....	35

CZECHOSLOVAKIA

CSSR JSEP Computer EC 1027 Described (Zdenek Korvas; MECHANIZACE AUTOMATIZACE ADMINISTRATIVY, No 3, 1985).....	40
SMEP in Mass Data Processing Discussed (Jana Folprechtova, et. al.; MECHANIZACE AUTOMATIZACE ADMINISTRATIVY, No 3, 1985).....	46

JPRS-ESA-85-036

2 December 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

GERMAN DEMOCRATIC REPUBLIC

Physical Aspects, Use of Technical Intelligence Aids (R. Lehmann; MILITAERTECHNIK, Vol 6, No 3, 1984)	1
Institute Director on Materials, Solid-State Physics Research (Johannes Barthel; PRESSE-INFORMATIONEN, No 61, 30 May 85).....	6
Minister Addresses Research Cooperation in Chemical Industry (Guenther Wyschofsky; PRESSE-INFORMATIONEN, No 55, 16 May 85).....	8
Briefs	
Largest GDR Oxygen Plant	11
Freely Programmable Industrial Robot	11
Image Processing Robot Sensors	12
PCB Testing Computer Developed	12
Small Computer Production To Rise	13

HUNGARY

Plight of Academy Natural Sciences Research Institutes (Kalman Pannonghalmi; MAGYAR TUDOMANY, No 12, 85).....	14
Prospects of Making, Buying, Using Robots Viewed (Gitta Takacs; FIGYELO, No 39, 27 Sep 85).....	23
Robot Engineering Company (FIGYELO, No 39, 27 Sep 85).....	28
Vamos Views Need for Robot Production (Tibor Vamos Interview; FIGYELO, No 39, 27 Sep 85).....	30

Problems of Robot Pioneers (FIGYELO, No 39, 27 Sep 85).....	35
POLAND	
Silicon Semiconductor Developments (Andrzej Bukowski; POLISH TECHNICAL REVIEW, No 2-3, 1985). .	38
Electroplating Process Equipment Profiled (Karol Patorski, Jerzy Strzelecki; POLISH TECHNICAL REIVEW, No 2-3, 1985).....	40
New Marine Data Link Equipment (Stefan Kijak; POLISH TECHNICAL REVIEW; No 2-3, 1985)....	43
'UNITRA-CEMAT' Line of Conducting, Dielectric Pastes (Selim Achmatowicz; POLISH TECHNICAL REVIEW, No 2-3, 1985).....	46
Composite Electric Contact Materials (Jacek Senkara, Jan Kowalczyk; POLISH TECHNICAL REVIEW, No 2-3, 1985).....	48
R&D Trade Association Holds Fair (Andrzej Witkowski; POLISH TECHNICAL REVIEW, No 2-3, 1985).....	50
New Engineering Products, Technologies Profiled (POLISH TECHNICAL REVIEW, No 2-3, 1985).....	53
Advances in Electronics, Chemical Engineering, Metalworking (POLISH TECHNICAL REVIEW, No 2-3, 1985).....	59
ROMANIA	
Balneal Treatment in Secondary Sterility (Zenovia Iordache, et. al.; VIATA MEDICALA, No 7, Jul 85). .	65

20 December 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

CZECHOSLOVAKIA

- | | |
|--|---|
| Problems With Getting, Keeping Qualified Physicians Discussed
(RUDE PRAVO, 19 Jun 85) | 1 |
|--|---|

GERMAN DEMOCRATIC REPUBLIC

- | | |
|---|---|
| GDR Research Databank Construction, Applications Reviewed
(Dietmar Keil; INFORMATIK, No 4, 1985) | 4 |
|---|---|

POLAND

- | | |
|--|----|
| New Engineering Products Advertised
(POLISH ENGINEERING, No 3, 1985) | 7 |
| New Process for Making Radiation Treated, Heat-Shrinkable PE Tubes
(WIADOMOSCI ELEKTROTECHNICZNE, Nos 7-8, 1-15 Apr 85) | 13 |

ROMANIA

- | | |
|---|----|
| Synthesis of Tricyclic Antidepressive Drugs
(Dorin Brezeanu, et al.; REVISTA DE CHIMIE, No 7, Jul 85). | 19 |
| Symposium on Drug Industry
(Magdalena Schenn, R. Ionescu; REVISTA DE CHIMIE,
No 7, Jul 85) | 27 |
| Thermally, Chemically Resistant Enamels
(Maria Zaharescu, et al.; REVISTA DE CHIMIE, No 7, Jul 85) | 29 |
| Acute Toxicity of Butanol, Mono-, Di-, and Tributylamine
(Maria Ciugudeanu, et al.; REVISTA DE CHIMIE, No 7, Jul 85) | 38 |
| Achievements, Prospects for Motru-Jilt Coal Field
(N. Alecu; MINE, PETROL SI GAZE, Aug 85) | 45 |
| Achievements, Outlook for Non-Metallic Substances
(C. Smarandescu; MINE, PETROL SI GAZE, Aug 85) | 49 |

Development of Hardcoal Mining, Utilization in Valea Jiului (I. Costescu; MINE, PETROL SI GAZE, Aug 85)	52
Increased Achievement, Utilization in Mining Anticipated (D. Condrache; MINE, PETROL SI GAZE, Aug 85)	56
Increased Copper Production at Deva Ore Central (A. Lapusca; MINE, PETROL SI GAZE, Aug 85)	59
Increased Non-Ferrous Ore Production at Baia Mare Central (N. Dieu; MINE, PETROL SI GAZE, Aug 85)	62
Use of New Polyurethane in Leather Substitute (Carmen Anghel, Tudorel Lungu; INDUSTRIA USOARA, No 5, May 85)	67

JPRS-ESA-85-038

30 December 1985

EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY

CONTENTS

INTERNATIONAL AFFAIRS

- Hungary, USSR Agree To Trade Computer Program
(MAGYAR HIRLAP, 16 Nov 85)..... 1

GERMAN DEMOCRATIC REPUBLIC

- Computer Network Expansion Described
(Hermann Walter Meier; NEUE ZEIT, 1 Oct 85)..... 2
- Formation of Surface Figure During Optical Surface Polishing
(A. Leitel; FEINGERAETETECHNIK, Vol 34, No 7, 1985)..... 4

HUNGARY

- Resolution of Academy's '85 General Assembly
(MAGYAR TUDOMANY, No 7-8, 1985)..... 14
- Jurisdiction of Academy Officials Designated
(MAGYAR TUDOMANY, No 7-8, 1985)..... 23
- Computer Situation in Cooperatives Commented
(Janos Cseh; NEPSZAVA, 24 Oct 85)..... 25
- Briefs
CNC Machining Center Production 27

ROMANIA

- Activity of Electronic Computer Enterprise
(STIINTA SI TEHNICA, No 8, Aug 85)..... 28
- ICPE-IAEAME Cooperation in Electrical Machine Production
(ELECTROTEHNICA, No 7-8, Sep-Oct 85)..... 30
- Use of Solar Power in Photovoltaic, Thermal Conversions
(Doina Moraru et. al.; ELECTROTEHNICA, No 7-8,
Sep-Oct 85)..... 33

29 December 1985

**EAST EUROPE REPORT
SCIENCE AND TECHNOLOGY**

CONTENTS

INTERNATIONAL AFFAIRS

- | | |
|--|---|
| GDR-USSR Cooperation in CEMA Standardization Efforts Outlined
(G. D. Kolmogorov; STANDARDISIERUNG UND QUALITAET, No 5,
Jul 85) | 1 |
|--|---|

BULGARIA

- | | |
|--|---|
| New Bulgarian Technologies Described
(Panayot Lyakov; RODOLYUBIE, No 9, 1985) | 3 |
| Statement by John Atanasov on Possible Computer Use
(RODOLYUBIE, No 9, 1985) | 6 |
| Experimental Use of Computers in Schools
(RODOLYUBIE, No 9, 1985) | 7 |

GERMAN DEMOCRATIC REPUBLIC

- | | |
|--|----|
| Deputy Electronics Minister Highlights Industry's Progress
(Uwe Boegelsack; PRESSE-INFORMATIONEN, No 58, 23 May 85) | 9 |
| Trends in Microelectronics Development, Applications
(R. Koestner et al.; NACHRICHTENTECHNIK-ELEKTRONIK, No 9,
Sep 85) | 12 |
| Chamber of Technology VP on Electrical Engineering Training
(Peter Klaus Budig; ELEKTRIE, No 7, 1985) | 31 |
| CAD/CAE in Training of Electrical Engineers Viewed
(Eberhard Paulig; ELEKTRIE, No 5, 1985) | 34 |

HUNGARY

- | | |
|---|----|
| Second Integrated Circuit Production Line Operational
(HETIVILLAGGAZDASAG, No 46, 16 Nov 85) | 36 |
|---|----|

POLAND

- | | |
|--|----|
| Electrical Engineering Products Shown at 1984 Brno Fair
(Stanislaw Ignatowicz; ELEKTRONIKA, No 6, Jun 85) | 37 |
|--|----|

ROMANIA

Vibration-Proof Devices Used in Mining Industry
(I. N. Constantinescu, Al. Darabont; MINE, PETROL SI GAZE,
No 9, Sep 85) 46